Please amend claims 23-24, 27, 34, 45-46, 48, 55 and 62, as set forth on the enclosed pages.

REMARKS

In response to the indefiniteness rejection under §112, applicant has deleted the term "integrity" from claims 23-24, 45-46 and 62, but notes for the record that this term appeared in the claims, as originally filed, without objection.

Applicant is uncertain why the Examiner objected to the term "integrity" in claims 66-79 since that term was not used in those claims.

Applicant has also provided consistent antecedent basis for the term "path overhead information" in claims 23-24, 27, 34, 45-46, 48, 55 and 62.

All changes to the claims are of a formal nature and their entry is as a matter of right.

On the merits, the Examiner has cited the new prior art of U.S. Patent No. 6,157,658 to Toyoyama under 35 U.S.C. §102(e) as anticipating current claims 23-79. Toyoyama is directed towards the design of an integrated circuit for pointer processing and path overhead (POH) termination in an SDH signal. The idea behind Toyoyama is a more efficient and compact circuit design carrying out these functions. This is set out in the abstract. Figs. 4-6 show block diagrams of tributary unit (TU) pointer processing units.

The present invention involves processing of the path overhead (POH) of virtual containers. The POH processing of the present invention is concerned with

converting a signal into a virtually concatenated information structure. This is not disclosed in Toyoyama. In fact, having studied Toyoyama, no trace can be found of any reference to a *virtually* concatenated information structure.

Toyoyama is concerned with a pointer processing apparatus and a path overhead (POH) terminating apparatus implemented in an integrated circuit, the aim being to decrease in the scale of the hardware or power consumption and equipping more functions on one chip than hitherto. The only reference to concatenation that can be found in Toyoyama exists at col. 2, lines 35-39. However, this is no more than an echo of the SDH recommendation G. 707 (e.g., Draft of November 1995, Section 8".1.7.1, page 43) issued by the ITU and referred to in the introduction to the present application at page 1. The concatenation pointer relates to the art of *contiguous* concatenation. As indicated in the introduction to the present application, contiguous concatenation is comprised in the prior art and is associated with a number of serious disadvantages. In particular, a good proportion of the existing SDH type networks in the world do not have the capacity to handle contiguously concatenated signals, and the modifications to equipment that would be required in order to remedy this are deemed uneconomic.

Advantageously, the invention sets forth a practical alternative to contiguously concatenated data in the form of *virtually* concatenated data. Virtually concatenated data has the advantage that it may be carried on existing SDH networks with only a minimum of modification required.

Virtually concatenated data structures are fundamentally different from contiguously concatenated data structures. Whereas contiguously concatenated data structures rely on the use of the pointer and actually remove the entire path overhead information from some of the virtual containers, virtually concatenated data structures according to the present invention preserve all path overhead information. This is set out at page 2 of the description from lines 9-18 and is reflected in the wording of the main claims. In summary, Toyoyama does not teach a viable method of carrying data in the virtually concatenated data structures as provided by the present invention. No reference to virtual concatenation can be found anywhere in Toyoyama. The Examiner's objection is therefore traversed.

Referring back to U.S. Patent No. 6,011,802 to Norman, the Examiner stated at Section 4 of the official action that the applicant's previous arguments relating to Norman were not found persuasive. However, the Examiner has not correctly set out the applicant's arguments. In particular, the Examiner traverses the argument: "reference does not teach concatenated information structure". However, this is *not* the applicant's argument.

The applicant argued that Norman does not teach a *virtually* concatenated information structure. As with Toyoyama, the present invention is also distinguished from Norman in providing a viable *virtual* concatenated data structure. This data structure is *not* disclosed in Norman, is *not* disclosed in G.707 in the versions available prior to the priority date of the present application, and provides significant advantages over the known

contiguously concatenated data structure. The applicant maintains that the Examiner's objections on the basis of Norman are traversed.

Allowance of all claims is respectfully requested.

Respectfully submitted,

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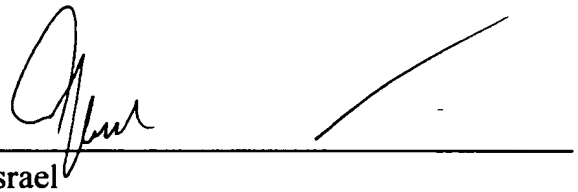

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MARKED-UP AMENDED CLAIMS

23. (Amended) A method for the transmission of data in a synchronous digital hierarchy (SDH) network, comprising the steps of: transmitting to a node of the network a form of data signal from outside the network, converting the signal into a virtually concatenated information structure having path overhead information, and transporting the signal through the network in the virtually concatenated information structure, the converting step including the step of processing [a] the path overhead information of the signal, whereby [integrity of] the path overhead information is maintained.

24. (Amended) The method of claim 23, comprising the step of converting the signal so transported into a signal of the form of the data signal transmitted to the node of the network , the converting step including the step of processing [a] the path overhead information of the signal so transported, whereby [integrity of] the path overhead information is maintained.

27. (Amended) The method of claim 26, wherein the path overhead information comprises bytes H4, J1 and B3, wherein the VC-4 and VC-3 comprise a plurality of frames, and the step of processing the path overhead information includes the steps of using byte H4 for indicating frame sequence within the VC-4 or VC-3, using byte J1 to indicate an order of VC-4s or VC-3s in the virtually concatenated information structure, and correcting, as necessary, error indication information carried in byte B3.

34. (Amended) The method of claim 33, wherein the path overhead information comprises bytes V5, J2, N2 and K4, and wherein the step of processing the path overhead information includes the step of transferring contents of the path overhead bytes to unused parts of the signal.

45. (Amended) A method for the transmission of data in a synchronous digital hierarchy (SDH) network, comprising the steps of: transmitting to a node of the network a contiguously concatenated data signal from outside the network, converting the signal into a virtually concatenated information structure having path overhead information, and transporting the signal through the network in the virtually concatenated information structure, the converting step comprising the step of processing [a] the path overhead information of the signal including the step of using a part of the path overhead information to indicate a sequence of frames in the virtually concatenated information structure, whereby [integrity of] the path overhead information is maintained.

46. (Amended) The method of claim 45, comprising the step of converting the signal so transported into a signal of the form of the data signal transmitted to the node of the network, the converting step comprises the step of processing the path overhead information of the signal so transported, and restoring the part of the path overhead information used to indicate the sequence of frames in the virtually concatenated information structure, whereby [integrity of] the path overhead information is maintained.

48. (Amended) The method of claim 47, wherein the path overhead information comprises bytes H4, J1 and B3, wherein the VC-4 and VC-3 comprise a plurality of frames, and the step of processing the path overhead information includes the steps of using byte H4 for indicating frame sequence within the VC-4 or VC-3, using byte J1 to indicate an order of VC-4s or VC-3s in a virtually concatenated information structure, and correcting, as necessary, error indication information carried in byte B3.

55. (Amended) The method of claim 54, wherein the path overhead information comprises bytes V5, J2, N2 and K4, and wherein the step of processing the path overhead information includes the step of transferring contents of the path overhead bytes to unused parts of the signal.

62. (Amended) A synchronous digital hierarchy (SDH) network in which data is carried [in a virtually concatenated information structure], the network comprising: tributary interfaces arranged and configured to process [signals] a signal received in a contiguously concatenated form [to convert them] for conversion into a virtually concatenated [form] information structure having path overhead information for transfer across the network, the tributary interfaces comprising means for processing the path [overheads] overhead information of the [signals] signal including means for using a part of the path overhead information to indicate a sequence of frames in the virtually concatenated information structure, whereby [integrity of] the path overhead information is maintained.